

Notice of Allowability

Application No.

09/973,002

Examiner

Lourdes Cruz

Applicant(s)

HIRAOKA ET AL.

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to An RCE filed 7-30-2003.
2. ☒ The allowed claim(s) is/are 1,2,4 and 5.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☒ including changes required by the proposed drawing correction filed 5-30-2003, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |


CARL WHITEHEAD, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

DETAILED ACTION

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: There is prior art regarding stacked encapsulated semiconductor devices. See, for example, that Lin et al. (US 6359340) discloses a semiconductor device (see Fig. 10) comprising: A substrate 560 having a first plurality of pads (connected to 512) and a second plurality of pads (connected to 542), a first semiconductor chip 510 mounted on said substrate and having a third plurality of pads 510a; a plate member 520 arranged on said first semiconductor chip having a first end (end under 540) at an inward position from/of said first semiconductor chip adjacent to/from the third plurality of pads, and a second end being exposed to an outside.

However, the Application as amended specifically recites the combination of a semiconductor device comprising a substrate with first and second pads, first and second chips with pads, a plate member, and the specific structural disposition of the above relative one another, and more specifically the electrical interconnection between chip/plate pads. The claim also recites wherein said plate member has a first portion covered by said first and second semiconductor chips, and a second portion protruding from said first and second semiconductor chips and extending through said seal member to the seal member side surface whereby said plate member is exposed to an outside of said seal member.

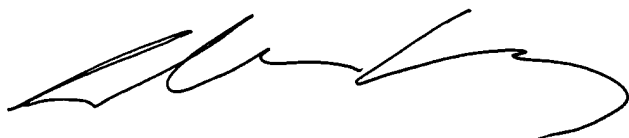
The above is neither obvious over nor anticipated by the prior art of record, which fails to neither alone nor in combination anticipate the present invention as claimed. Hence the Notice of Allowability included herein.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elle Cruz whose telephone number is (571) 272-1928. The examiner can normally be reached on M-F 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

A handwritten signature in black ink, appearing to read 'Elle Cruz', with a long, sweeping horizontal stroke at the end.

Elle Cruz

Lourdes Cruz
Examiner
Art Unit 2827